HAMILTON COLLEGE CATALOGUE

ONE HUNDRED AND THIRD YEAR

1914-1915

ANNOUNCEMENTS FOR 1915-1916

CLINTON, NEW YORK, FEBRUARY, 1915

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THE
MARGARET
VASSAR

COLLEGE CALENDAR

First Term, 1914-1915

1914
Sept. 17 Thursday, 8:30 a. m., Beginning of the Academic Year.

Christmas Recess, from December 22, Tuesday, 5:30 p. m., to January 6, Wednesday, 8 a. m.

1915
Jan. 25–30 Monday to Saturday, Term Examinations.

Second Term

Feb. 4 Thursday, 8:30 a. m., Begining of Second Term.
Feb. 11 Thursday, Delinquent Examinations.
Feb. 21 Sunday, Day of Prayer for Colleges.
Feb. 22 *Monday, Washington's Birthday.*

Easter Recess, from April 1, Thursday, 5:30 p. m., to April 13, Tuesday, 8 a. m.

April 13 Tuesday, before noon, Clark Prize Orations due.
April 24 Saturday, 9 a. m., Meeting of the Trustees.
May 15 *Saturday, from 10:30, Inter-Academic Day.*
May 23 Sunday, Annual Y. M. C. A. Report.
May 29 Saturday, Southworth Prize Examination in Physics.
May 31 *Monday, Memorial Day.*
June 1 Tuesday, Annual Drawing for Rooms, 4:30 p. m.
June 2 Wednesday, 8 p. m., Clark Prize Exhibition.
June 3 Thursday, Underwood Prize Examination in Chemistry.
Tower Prize Examination in Spanish.
June 4 Friday, Tower Prize Examination in French.
June 4–10 Friday to Thursday, Final Senior Examinations.
June 5 Saturday, Tompkins Prize Examination in Mathematics.
Warfield Prize Examination in German.
June 10 Thursday, Curran and Hawley Prize Examinations in Greek and Latin.

June 10–16 Thursday to Wednesday, Term Examinations.
June 11 Friday, Announcement of Senior Honors.
June 15–17 Tuesday to Thursday, Entrance Examinations.
June 16 Wednesday, Final Chapel. Announcement of the Prizes of the Year.

Commencement Week

June 17 Thursday, McKinney Prize Speaking, 4 p. m.
June 18 Friday, Class Day, 10 a. m.
Meeting of the Trustees, 2 p. m.
McKinney Prize Debate, 8 p. m.
June 19 Saturday, Alumni Day. Meeting of the Alumni Association, 10:30 a. m. Class Reunions.
June 20 Sunday, Baccalaureate Sermon, 4 p. m.
June 21 Monday, 103d Commencement, 10 a. m.

Summer Vacation of Thirteen Weeks

July 5 to August 13, Summer School of English.

First Term, 1915-1916

Sept. 20–22 Monday to Wednesday, Entrance Examinations.
Sept. 22 Wednesday, Registration of New Students, 10–12 a. m., 2–4 p. m.
New Students meet the Dean in the Chapel, 5 p. m.
Delinquent Examinations.
Sept. 23 Thursday, 8:30 a. m., Beginning of the Academic Year.
Oct. 9 Saturday, 9 a. m., Meeting of the Trustees.
Oct. 14 Thursday, before noon, Soper Theses due.
Oct. 14 *Thursday, from 12:30, Autumn Field Day.*
Nov. 25 *Thursday, Thanksgiving Day.*
Christmas Recess, from December 22, Wednesday, 5:30 p. m., to
1916 *January 4, Tuesday, 8 a. m.*
Jan. 4 Tuesday, before noon, Head, Pruyn, and Kirkland Prize Orations due.
Jan. 24–29 Monday to Saturday, Term Examinations.

THE TRUSTEES

	ELECTED	TERM
HON. ELIHU ROOT, LL.D., R.P.D., D.C.L., New York, *Chairman*	1883	
HON. CHARLES A. HAWLEY, LL.D., Seneca Falls	1884	
THOMAS D. CATLIN, A.M., Ottawa, Ill	1890	1917
*GEORGE E. DUNHAM, A.M., Utica, *Clerk*	1891	1915
HAMILTON B. TOMPKINS, A.M., New York	1892	
PRES. M. WOOLSEY STRYKER, D.D., LL.D., Clinton	1892	
FRANKLIN D. LOCKE, LL.D., Buffalo	1895	
JOHN N. BEACH, A.M., Brooklyn	1896	
ALEXANDER C. SOPER, A.M., Lakewood, N. J.	1897	
HENRY H. BENEDICT, A.M., New York	1897	
CHARLES B. ROGERS, A.M., Utica	1899	
BENJAMIN W. ARNOLD, A.M., Albany	1901	
JOHN E. FROST, LL.D., Topeka, Kan	1904	1918
*SAMUEL F. ENGS, A.B., Great Barrington, Mass.	1904	1917
SAMUEL H. ADAMS, A.B., Auburn	1905	1919
HON. FREDERICK W. GRIFFITH, A.M., Palmyra	1907	1921
HON. ABEL E. BLACKMAR, LL.D., Brooklyn	1908	1915
HON. JOSEPH I. FRANCE, M.D., Baltimore, Md.	1909	1916
REV. ROBERT G. MCGREGOR, D.D., New Rochelle	1910	1917
REUBEN L. MAYNARD, A.M., New York	1910	1917
*SAMUEL D. MILLER, A.B., Indianapolis, Ind	1910	1918
JOSEPH RUDD, PH.B., Clinton	1910	1917
REV. LOUIS G. COLSON, A.B., Camden	1911	1918

Henry Murray Andrews, A.M., New York	1912	1919
William McL. Bristol, A.B., Brooklyn	1912	1919
*Rev. Arthur S. Hoyt, D.D., Auburn	1912	1916
Thomas R. Proctor, A.M., Utica	1913	1920
Daniel Burke, A.M., New York	1913	1920

* Elected by the Alumni of the College.

COMMITTEES OF THE TRUSTEES

Executive Committee: Messrs. Stryker, Dunham, Griffith, Rogers, Rudd.

Ways and Means: Messrs. Soper, Benedict, Maynard, Bristol, Burke.

Instruction and Government: Messrs. Adams, Hoyt, Blackmar, Griffith, Andrews.

Laboratory, Cabinet, and Apparatus: Messrs. Engs, Arnold, Colson, France, Proctor.

Library: Messrs. Tompkins, Locke, McGregor, Rudd, Proctor.

Degrees: Messrs. Stryker, Hawley, Beach, McGregor, Hoyt.

Buildings and Grounds: Messrs. Root, Stryker, Griffith, Miller, Burke.

Undergraduate Activities: Messrs. Rudd, Engs, Colson, Miller, Bristol.

TREASURER

Charles B. Rogers, First National Bank, Utica.

THE FACULTY

MELANCTHON WOOLSEY STRYKER...*President of the College. Walcott Professor (1892) of Theistic and Christian Evidences and of Ethics. Pastor of the College Church.*

A.B., Hamilton, 1872; D.D., Hamilton, and Lafayette, 1889; LL.D., Lafayette, 1892; Wesleyan, 1910.

HERMAN CARL GEORGE BRANDT....*Munson Professor (1882) of the German Language and Literature.*

A.B., Hamilton, 1872; Ph.D., 1896; L.H.D., Colgate, 1910.

EDWARD FITCH....*Edward North Professor (1889) of Greek.*

A.B., Hamilton, 1886; Ph. D., Göttingen, 1896.

ALBRO DAVID MORRILL...*Stone Professor (1891) of Biology.*

B.S., Dartmouth, 1876; M. S., 1879; A.M., Belmont College, 1885.

WILLIAM HARDER SQUIRES.....*John Stewart Kennedy Professor (1891) of Philosophy.*

A.B., Hamilton, 1888; A.M., 1891; Ph.D., Leipzig, 1901.

SAMUEL J. SAUNDERS.....*Professor (1892) of Physics and Instructor in Astronomy upon the Litchfield Foundation. Registrar.*

A.B., Toronto, 1888; A.M., 1893; D. Sc., Cornell, 1894.

WILLIAM PIERCE SHEPARD....*Burgess Professor (1895) of the Romance Languages and Literatures.*

A.B., Hamilton, 1892; A.M., 1893; Ph.D., Heidelberg, 1896.

JOSEPH DARLING IBBOTSON, JR.....*Librarian (1911). Instructor (1895) in Hebrew.*

A.B., Hamilton, 1890; A.M., 1894.

ARTHUR PERCY SAUNDERS.....*Childs Professor (1900) of Agricultural and of General Chemistry. Dean.*
A.B., Toronto, 1890; Ph.D., Johns Hopkins, 1894.

FRANK HOYT WOOD.....*P. V. Rogers Professor (1902) of American History.*
A.B., Syracuse, 1891; A.M., 1894; A.B., Harvard, 1892; Ph.D., Leipzig, 1900.

FREDERICK MORGAN DAVENPORT.....*Maynard-Knox Professor (1904) of Law, Politics, and Economics.*
A.B., Wesleyan, 1889; Ph.D., Columbia, 1905.

CALVIN LESLIE LEWIS...*Upson Professor (1908) of Rhetoric and Oratorical Training. Director of the Summer School of English.*
A.B., Hamilton, 1890; A.M., New York University, 1901.

CLEVELAND KING CHASE.....*Benjamin-Bates Professor (1911) of Latin.*
A.B., Oberlin, 1891; A.M., 1896.

FRANK HUMPHREY RISTINE.....*Professor (1912) of the English Language and Literature.*
A.B., Wabash, 1905; A.M., Columbia, 1907; Ph.D., 1910.

WILLIAM MASSEY CARRUTH.....*Associate Professor (1907) of Mathematics.*
A.B., Cornell, 1901.

HORACE SEELY BROWN.....*Associate Professor (1908) of Mathematics. Clerk of the Faculty.*
B.S., Lafayette, 1899; M.S., 1905.

RALPH CLEWELL SUPER.....*Associate Professor (1913) of Spanish, French, and German.*
A.B., Ohio University, 1895; Diploma of Grenoble, France, 1899.

HAROLD RIPLEY HASTINGS.....*Assistant Professor (1911) of Latin and Greek.*
A.B., Dartmouth, 1900; A.M., Harvard, 1902;
Ph.D., Wisconsin, 1910.

DANIEL CHASE.....*Assistant Professor (1912) of Hygiene and Director of Gymnastics.*
A.B., University of Maine, 1908; M.S., Hamilton, 1914.

WILLARD BOSTWICK MARSH.....*Assistant Professor (1913) of Writing and Speaking.*
A.B., Hamilton, 1912.

NELSON CLARK DALE.....*Assistant Professor (1914) of Geology.*
B.S., Middlebury, 1903; M.A., Brown, 1909;
Ph.D., Princeton, 1914.

EDWIN LEAVITT CLARKE.....*Assistant Professor (1914) of Law and Economics.*
A.B., Clark, 1909; A.M., 1911.

COMMITTEES OF THE FACULTY

Schedule and Studies: Professors Fitch, S. J. Saunders, Morrill, Shepard, Dale.

Undergraduate Activities: Professors Wood, A. P. Saunders, D. Chase, Hastings, Marsh.

Reading: The President, Professors Lewis, A. P. Saunders, Super, Marsh.

Library: Professors Ibbotson, Brandt, Fitch, Davenport.

Registration: The President, Professors Brandt, Fitch.

Record of Scholarship: The Registrar, Professors Carruth, Brown.

Discipline: The President, the Dean, the Clerk, Professors Carruth, Ristine.

Catalogue: Professors Ibbotson, Squires, Carruth, C. K. Chase, Ristine.

COLLEGE OFFICERS

Edward M. Coughlin.....*Bursar (1914)*
Ruth Margery Ellis.....*Library Assistant (1912)*
Sophie Williams.....*Library Assistant (1912)*
Carrie Lena Pitcher.....*Library Assistant (1913)*

George E. Tunbridge.....*Steward of Commons Hall (1912)*

EARLY HISTORY

Hamilton College is the outgrowth of the labors of Samuel Kirkland, missionary to the Oneida Indians through the latter half of the eighteenth century. At the beginning of the Revolutionary War his influence drew many Iroquois to the Colonial cause, and materially contributed to the successful issue of the Battle of Oriskany and the relief of Fort Stanwix. This service of Kirkland won the attention and regard of both Washington and Hamilton. Fifteen years later, when Kirkland determined to establish a school for the Indians and the sons of white settlers, Hamilton gave his support to the project, and became the first trustee of the Hamilton Oneida Academy. The Academy was chartered by the Regents of the State of New York, January 29, 1793. The State and the Indians had granted to Kirkland in 1788 two square miles of land in what is now the Town of Kirkland, a portion of which was set aside for the new institution. Here, in a small clearing, at a spot just south of the present Chapel, the corner-stone of the first building was laid by Baron Steuben, July 1, 1794. The school expanded gradually, until in 1810 its students numbered one hundred and seventy. Two years later, May 26, 1812, the college charter was granted.

AIMS

In a period of rapidly changing educational beliefs, Hamilton College has chosen to preserve the best of the earlier college ideals. It believes in the thorough mastery of subjects of approved disciplinary and cultural value as a means of giving its students a broad and liberal training for life. It

adheres to its classical traditions, believing that in the diversity of modern educational needs and practices there is a definite place for the small college that emphasizes the humanities. It believes that the discipline of language training is an essential part of the preparation for subsequent specialization in any field of study, as well as the basis for a broad knowledge of literature.

While the College thus vigorously maintains the cultural ideal, it aims to slight no subject that is essential to a well-rounded education. The modern languages are not sacrificed to the ancient, nor the natural sciences to philosophic or economic studies. Laboratory training in the methods of science forms an integral part of the scheme of studies prescribed as the basis of a liberal education. At the same time, students may receive thorough preparation for the scientific and medical schools. Instruction in the principles of constitutional government, begun under Theodore W. Dwight, seventy years ago, and extended to follow the advance of constitutional government throughout the world, equips men for intelligent citizenship. The College has long enjoyed a reputation for the efficient training in oratory which it imparts to all its students. In addition to the usual courses of English study, constant work in public speaking is required of every student throughout his course.

By a judicious application of a group system of studies, the College aims to secure breadth without superficiality, and thoroughness without cramping rigidity. It demands hard and intensive work on the part of its students, and it strives to offer them breadth of educational and spiritual outlook.

ADMISSION

METHODS OF ADMISSION TO THE FRESHMAN CLASS

1. **By examination at the College.** Entrance examinations will be held in the several department rooms, June 15-17, and September 20-25, 1915, as follows:

Tuesday, June 15	Latin, 9 to 12 a. m. Natural sciences, 2 to 5 p. m. Advanced mathematics, 2 to 5 p. m.
Wednesday, June 16	Mathematics, 9 to 12 a. m. English, 2 to 5 p. m.
Thursday, June 17	Greek, 9 to 12 a. m. Modern languages, 9 to 12 a. m. History, 2 to 4 p. m.
Monday, Sept. 20	Latin, 2 to 5 p. m.
Tuesday, Sept. 21	Mathematics, 8:30 to 11:30 a. m. English, 2 to 5 p. m.
Wednesday, Sept. 22	Greek, 8:30 to 11:30 a. m. Modern languages, 8:30 to 11:30 a. m. History, 2 to 4 p. m.
Saturday, Sept. 25	Natural sciences, 2 to 5 p. m. Advanced mathematics, 2 to 5 p. m.

Any of these examinations may be taken one year before the candidate expects to enter college.

2. **By certificate of the New York State Education Department.** Full credit will be given to all examinations in preparatory subjects conducted by this department. Diplomas and subject pass-cards, issued by it, will be accepted so far as these cover the requirements.

3. By certificate of the College Entrance Examination Board. All applications for examinations conducted by this Board must be addressed to the Secretary of the College Entrance Examination Board, P. O. Substation 84, New York City, and must be made upon a blank form to be obtained from the Secretary of the Board at least three weeks in advance of the examination. The fee is five dollars for all candidates examined at points in the United States and Canada.

4. By certificate from the principal of the school in which the student has been prepared. Such schools must have been approved by the Faculty of the College. Blank certificates will be sent by the President upon request, and should be filed with him as early as possible. These certificates are itemized, specifying time, topics, and grades.

Students who have tried entrance examinations and have failed to pass are not entitled to the privilege of admission on principals' certificates or Regents' credentials.

REQUIREMENTS FOR ADMISSION

Fourteen and one-half units of secondary school studies are required. A unit in any subject represents a year's study, constituting approximately a quarter of a full year's work. Under ordinary circumstances, a satisfactory year's work in any subject cannot be accomplished in less than 120 sixty-minute periods or their equivalent.

The preparatory subjects are divided into two groups, for admission to the Classical and to the Latin-Scientific Courses respectively; but the ultimate classification of students does not depend entirely on the subjects presented for admission. Thus, students who either begin or pursue the study of Greek in college are registered in the Classical Course; all others are registered in the Latin-Scientific Course.

The required units for admission to the two courses are as follows, subject to rules *A, B, C, D,* specified below:

CLASSICAL			LATIN-SCIENTIFIC		
English - - - -	3	units	English - - - -	3	units
Algebra - - - -	1½	units	Algebra - - - -	1½	units
Geometry - - -	1	unit	Geometry - - -	1	unit
Latin (*See Rule B*)	4	units	Latin (*See Rule B*)	4	units
Greek (*See Rule B*)	3	units	Modern Language	2	units
Ancient History -	1	unit	History - - - -	1	unit
Elective - - - -	1	unit	Elective - - - -	2	units

The elective subjects that may be presented to complete the fourteen and one-half units in either course are the following:

Elementary German	2	units	European History -	1	unit
Advanced German	1	unit	English History -	1	unit
Elementary French	2	units	American History	1	unit
Advanced French	1	unit	Biology - - - -	1	unit
Elementary Spanish	2	units	Chemistry - - -	1	unit
Advanced Math'tics	1½	units	Physics - - - -	1	unit
Ancient History	1	unit			

A. A single elementary year of any language will not be counted as fulfilling any unit of these requirements. The third year of advanced language study may, however, be presented as an elective unit in either course.

B. For the fourth year of Latin (one unit) or the third year of Greek (one unit), but not for both, one unit of a modern language may be substituted. This substitution is limited, however, by the requirement of rule *A.*

C. At least one and one-half units of advanced mathematics must be presented in order to be counted as an elective subject in fulfillment of these requirements.

D. Not more than one elective unit in history may be offered.

Part, at least, of the preparatory work in algebra should be done in the final year in the secondary school.

A student slightly deficient in any subject required for

admission may be admitted with a condition in that subject. For the removal of the condition the department concerned will fix a program of study, and will set an examination not later than the opening of the second term. Failure to pass this examination on the date set will count thereafter in the student's record as the equivalent of a failure in a three-hour college course.

DEFINITION OF REQUIREMENTS

ENGLISH

(1) English Grammar and Composition

English grammar should ordinarily be reviewed in the high school, and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition, punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise narration, description, and easy exposition and argument, based on simple outlines. Finally, special instruction in language and composition should be accompanied by a concerted effort of teachers to cultivate in the student the habit of using good English in all his recitations and various exercises, whether oral or written.

(2) English Literature

The requirement includes, first, a thorough familiarity with at least ten selections made from five groups of books prescribed *for reading,* and second, a more minute knowledge of certain specified examples of the drama, lyric, essay, and oration prescribed *for study.* The books necessary to meet both parts of the requirement are those recommended by the National Conference on Uniform Requirements in English. For 1915–1919 they are as follows:

(A) For Reading

Group 1. Classics in Translation (two to be selected). The *Old Testament,* comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the *Odyssey,* with the omission, if desired,

of Books 1-5, 15-17; the *Iliad,* with the omission, if desired, of Books 11, 13-15, 17, 21; the *Aeneid.* The *Odyssey, Iliad,* and *Aeneid* should be read in translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted. Selections are set off by semicolons.

Group 2. Shakespeare (two to be selected). *Midsummer Night's Dream; Merchant of Venice; As You Like It; Twelfth Night; The Tempest; Romeo and Juliet; King John; Richard II; Richard III; Henry V; Coriolanus; Julius Caesar; Macbeth; Hamlet.* (The last three plays if not chosen for study under B.)

Group 3. Prose Fiction (two to be selected). Malory's *Morte d'Arthur* (about 100 pages); Bunyan's *Pilgrim's Progress,* Part I; Swift's *Gulliver's Travels* (voyages to Lilliput and to Brobdingnag); Defoe's *Robinson Crusoe,* Part 1; Goldsmith's *Vicar of Wakefield;* Frances Burney's *Evelina;* Scott's novels, any *one;* Mrs. Gaskell's *Cranford;* Kingsley's *Westward Ho!* or *Hereward the Wake;* Reade's *The Cloister and the Hearth;* Blackmore's *Lorna Doone;* Hughes' *Tom Brown's School Days;* Stevenson's *Treasure Island,* or *Kidnapped,* or *Master of Ballantrae;* Cooper's novels, any *one;* Poe's *Tales;* Hawthorne's *The House of the Seven Gables,* or *Twice Told Tales,* or *Mosses from an Old Manse;* a collection of short stories by various standard writers.

Group 4. Essays, Biography, etc. (two to be selected). Addison and Steele's *Sir Roger de Coverley Papers,* or selections from the *Tatler* and *Spectator* (about 200 pages); selections from Boswell's *Life of Johnson* (about 200 pages); Franklin's *Autobiography;* selections from Irving's *Sketch Book* (about 200 pages), or *Life of Goldsmith;* Southey's *Life of Nelson;* selections from Lamb's *Essays of Elia* (about 100 pages); selections from Lockhart's *Life of Scott* (about 200 pages); Thackeray's lectures on Swift, Addison, and Steele, in the *English Humorists;* Macaulay, any one of the following essays — *Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederick the Great, Madame d'Arblay;* selections from Trevelyan's *Life of Macaulay* (about 200 pages); Ruskin's *Sesame and Lilies,* or selections (about 150 pages); Dana's *Two Years before the Mast;* selections from Lincoln, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, the Letter to Greely, together with a brief memoir; Parkman's *Oregon Trail;* Thoreau's *Walden;* selected essays of Lowell (about 150 pages); Holmes' *Autocrat of the Breakfast Table;* Stevenson's *An Inland Voyage* and *Travels with a Donkey;* Huxley's *Auto-*

biography and selections from the *Lay Sermons,* including the addresses on Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk; a collection of essays by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers; a collection of letters by various standard writers.

Group 5. Poetry (two to be selected). Palgrave's *Golden Treasury (First Series),* Books 2 and 3, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's *Golden Treasury (First Series),* Book 4, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under B); Goldsmith's *The Traveller* and *The Deserted Village;* Pope's *The Rape of the Lock;* a collection of English and Scottish ballads; Coleridge's *The Ancient Mariner, Christabel,* and *Kubla Khan;* Byron's *Childe Harold,* Canto 3 or 4, and *The Prisoner of Chillon;* Scott's *The Lady of the Lake,* or *Marmion;* Macaulay's *Lays of Ancient Rome, The Battle of Naseby, The Armada, Ivry;* Tennyson's *The Princess,* or *Gareth and Lynette, Lancelot and Elaine,* and *The Passing of Arthur;* Browning's *Cavalier Tunes, The Lost Leader, Good News from Ghent, Home Thoughts, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa, The Italian in England, The Patriot, The Pied Piper, "De Gustibus"—, Instans Tyrannus;* Arnold's *Sohrab and Rustum* and *The Forsaken Merman;* selections from American poetry, with special attention to Poe, Longfellow, Lowell, and Whittier.

(B) For Study

Group 1. Drama (one to be selected). Shakespeare's *Julius Caesar,* or *Macbeth,* or *Hamlet.*

Group 2. Poetry (one to be selected). Milton's *L'Allegro, Il Penseroso,* and either *Comus* or *Lycidas;* Tennyson's *The Coming of Arthur, The Holy Grail,* and *The Passing of Arthur;* the selections from Wordsworth, Keats, and Shelley in Palgrave's *Golden Treasury.*

Group 3. Oratory (one to be selected). Burke's *Speech on Conciliation with America;* Macaulay's *Speeches on Copyright,* and Lincoln's *Speech at Cooper Union;* Washington's *Farewell Address* and Webster's *First Bunker Hill Oration.*

Group 4. Essays (one to be selected). Carlyle's *Essay on Burns,* with a selection of Burns' poems; Macaulay's *Life of Johnson;* Emerson's *Essay on Manners.*

In addition to a thorough knowledge of the books read and studied, the student should have some familiarity with the facts of English literary history.

MATHEMATICS

(a) Elementary Mathematics

Elementary Algebra — The four fundamental operations for rational algebraic expressions; factoring, determination of the highest common factor and lowest common multiple by factoring; fractions, including complex fractions and ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including the fractional and negative; quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations; problems depending on quadratic equations; the binomial theorem for positive integral exponents; the formulas for the *n*th term and the sum of the terms of arithmetical and geometric progressions, with applications. Algebra should be reviewed during the last preparatory year.

Plane Geometry — The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle; the solution of numerous original exercises, including loci problems; applications to the mensuration of lines and plane surfaces.

(b) Advanced Mathematics

Advanced Algebra — Permutations and combinations, limited to simple cases; complex numbers, with graphical representation of sums and differences; determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations; numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes' rule of signs, and Horner's method, but not Sturm's functions or multiple roots.

Solid Geometry — The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle; the solution of numerous original exercises, including loci problems; applications to the mensuration of surfaces and solids.

Plane Trigonometry — Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulas, in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; solution of trigonometric equations of a simple character; theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique triangles and practical applications.

HISTORY

Ancient History, European History, English History, and United States History and Civil Government may each be offered as one unit for entrance. An accurate text-book of about 500 pages should be covered, and supplemented by suitable parallel readings of about 1000 pages. Attention should be paid to historical geography. The examination will call for comparison of historical characters, periods, and events, and for the exercise of judgment as well as of memory.

LATIN

The requirement for admission by examination is that of the College Entrance Examination Board, as stated below. This statement also indicates the preparation required of a candidate who presents a principal's certificate for admission. The requirement in a modified form is incorporated in the Syllabus of the New York State Education Department, whose credentials are accepted. For a candidate who offers but three units of Latin, requirement I, 2, b, or I, 2, c, below, is omitted.

I. Amount and Range of Reading Required

(1) The reading, without regard to the prescription of particular authors and works, shall be not less in amount than Caesar, *Gallic War,* I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, *Aeneid,* I-VI.

(2) The amount of reading specified above shall be selected by the schools from the following authors and works: (*a*) Caesar, *Gallic War* and *Civil War,* and Nepos, *Lives;* (*b*) Cicero, orations, letters, and *De Senectute,* and Sallust, *Catiline* and *Jugurthine War;* (*c*) Vergil, *Bucolics, Georgics,* and *Aeneid,* and Ovid, *Metamorphoses, Fasti,* and *Tristia.*

II. Scope of the Examinations

(1) **Translation at Sight** — Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

(2) **Prescribed Reading** — Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, *Aeneid,* I, II, and either IV or VI, at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not receive credit for either part.

(3) **Grammar and Composition** — The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

GREEK

The requirement is substantially as defined by the New York State Education Department in its Syllabus outlining the work of the first, second, and third years; and by the College Entrance Examination Board, under *a*I, *a*II, *b, g, c.*

(1) Greek Grammar; Xenophon's *Anabasis,* Books 1-4; the translation at sight of easy Greek prose; the translation into Greek of simple sentences based upon Books 1-2 of the *Anabasis,* in order to test the candidate's knowledge of forms and important principles of syntax. (Two units.)

(2) Homer's *Iliad,* Books 1-3 (omitting the catalogue of the ships), or an equivalent amount of the text of Homer. This includes Homeric forms, constructions, and prosody. (One unit.)

The requirements as above stated apply to candidates who are admitted either by certificate or by examination; and to competitors for the Maynard and Brockway Entrance Prizes and the Fayerweather Scholarships in so far as such competitors offer Greek as an entrance subject.

An alternative provision is made for candidates for the John W. Vrooman Freshman Prize Scholarship in Greek. These are examined orally upon the Greek text of the *Gospel of Luke* and upon Homer's *Iliad,* Books 1-3. Candidates who make a satisfactory record in this prize competition will be held to have met requirement 2 above, and so much of requirement 1 as is covered by Books 2-4 of the *Anabasis.* The remaining parts of the total requirement may be satisfied either by examination or upon certificate. A competitor for the Vrooman prize may also enter the Maynard and Brockway prize competition.

MODERN LANGUAGES

The requirements follow the recommendations of the Committee of Twelve of the Modern Language Association of America, upon which the more detailed statements of the College Entrance Examination Board and of the New York State Education Department are based.

In French and German the requirements are divided into (*a*) elementary (two units), and (*b*) advanced (one unit). *A single first year* no longer counts as one unit, either in combination with two years of another language or as a substitute for a third year of Greek or a fourth year of Latin. In general a modern language should be treated as a living language which is not merely to be read, but also to be written, spoken, and understood when heard. Hence the accurate acquisition of the foreign sounds and of a standard pronunciation is all important from the beginning, and the "direct" method of teaching the most effective. In the preparatory work great stress should be laid on oral and auricular training; the pupil should receive a constant drill in pronunciation, dictation, and the free reproduction (both in English and in French and German) of phrases and anecdotes read aloud by the teacher. The examination will include a practical test in this training, and the schools certifying a candidate for admission must state whether he has received it or not.

(A) French

(a) Elementary French — The work of the *first* year should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of adjectives, participles, and pronouns, the use of personal pronouns, adverbs, prepositions and conjunctions, the order of words in a sentence, and the elementary rules of syntax, with constant drill upon exercises illustrating these principles; (3) the reading of at least 100 pages of graduated texts, with

constant practice in translating into French easy variations of the sentences read, and in reproducing from memory sentences previously read; (4) simple conversation and writing of French from dictation. The work of the *second* year should comprise: (1) the reading of at least 250 pages of easy modern prose in the form of stories, plays, or historical and biographical sketches; (2) constant practice, as in the first year, in translating into French variations on the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the texts already read; (4) writing French from dictation; (5) continued drill in the rudiments of grammar and in the writing of sentences illustrative of the grammatical principles; (6) conversation, and the answering in French by the student of questions based on the text read. Suitable texts for the second year are About's *Le Roi des Montagnes,* Daudet's easier short tales, Erckmann-Chatrian's stories, Malot's *Sans Famille,* Sarcey's *Le siège de Paris,* Labiche's *La Poudre aux Yeux, Le Voyage de M. Perrichon, La Cagnotte,* extracts from Michelet, Verne's stories.

(b) Advanced French — A systematic course of five periods a week, extending over a third school year, in addition to the elementary course, should comprise: (1) at least 400 pages of French of ordinary difficulty, a portion to be in dramatic form; (2) constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; (3) the study of a grammar of moderate completeness; (4) writing from dictation; (5) continuation of the drill in oral and auricular training. At the end of this course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a thorough knowledge of syntax and morphology. Suitable texts are: About's stories, Augier's plays, Béranger's poems, Corneille's *Le Cid* and *Horace,* Labiche's plays, Loti's *Pêcheur d'Islande* and *Ramuntcho,* Molière's *L'Avare, Le Bourgeois Gentilhomme* and *Le Médecin malgré Lui,* Racine's *Athalie, Andromaque* and *Esther,* George Sand's *La Mare au Diable* and *François le Champi,* Scribe's plays, Thier's *L'Expédition de Bonaparte en Égypte,* Voltaire's historical writings.

(B) German

(a) Elementary German — The work of the *first* year should comprise: (1) a thorough, scientific, not merely imitative, acquisition of German sounds and sentence-accent (intonation); (2) drill in the

rudiments of grammar; the declension of articles, nouns, adjectives, and pronouns; the conjugation of weak verbs and of the common strong and irregular verbs; the use of the prepositions that govern the dative, the accusative, or both; the fundamental rules of syntax and word-order; (3) the reading of not less than 75 pages, preferably of graduated texts from a beginner's reader, followed by a comedy of Benedix, such as *Eigensinn* or *Versalzen,* by short stories of Frommel, Baumbach, or by *Biblische Geschichten;* (4) constant practice in translating into German simple exercises and easy variations upon sentences taken from the reading lesson. This and the frequent repetition and memorizing of easy colloquial sentences, proverbs, and short simple poems, form the best starting-point for conversation and dialogue. The work of the *second* year should comprise: (1) continued drill upon the elements of grammar, abundant illustrations, English and German, preferably from a separate exercise book, of such difficult features as the use of *haben* and *sein* in the active voice; of the modal auxiliaries; the subjunctive; adjectives used as nouns or that have become nouns; (2) continued practice as under first year; (3) the reading of 200 pages, which should include 50 or 60 pages of more difficult selections from the reader rather than three or four short texts with special vocabularies and copious notes. Suitable texts are: short stories such as Wildenbruch's *Das edle Blut,* Frenssen's *Gravelotte;* Eichendorff's *Aus dem Leben eines Taugenichts;* a short tragedy, such as Sudermann's *Teja;* a comedy, such as Moser und Heiden's *Köpnickerstrasse 120,* or Freytag's *Die Journalisten.*

(b) Advanced German — The work should comprise, in addition to the elementary course, the four following topics: (1) the reading of at least 400 pages of moderately difficult prose and poetry. Suitable texts are: the more difficult short stories of Seidel, Keller, and Raabe; Chamisso's *Peter Schlemihl;* Mogk's *Deutsche Sitten und Gebräuche;* plays such as Fulda's *Unter vier Augen* or his *Talisman;* Sudermann's *Heimat* or Ludwig's *Erbförster;* Schiller's *Tell* or *Jungfrau von Orleans;* Goethe's *Vicar of Sesenheim;* Goethe's *Hermann und Dorothea.* The use of texts with special vocabularies should cease and the use of a comprehensive dictionary should be encouraged. (2) The grammar should be completed by taking up word-formation and the comparison of cognates (German and English words of the same origin, such as *Schwester—sister; zehn—ten; Urlaub—furlough*); also the nicer uses of the definite article and the compounded verbs that may be separable or inseparable. The study of the more theoretical

grammars of Joynes, Brandt, and Whitney is recommended for this purpose and for the mastery of the technical language of the grammar. (3) Continuance of paraphrasing, abstracting, and reproducing the reading matter. The use of German by teacher and student to the utmost limit. (4) Sight-reading of some easier text with foot-notes.

(C) Spanish

The two years' work should comprise the following: careful drill in pronunciation; a complete study of some good grammar; mastery of all but the rare irregular verbs; the inflection of nouns, adjectives, and pronouns; the essential elements of syntax; the reading of at least 300 pages of modern Spanish prose or verse; exercises containing illustrations of the principles of grammar, and practice in translating into Spanish variations of texts read; writing Spanish from dictation.

BIOLOGY

The requirement of one unit may be satisfied by presenting one of the following subjects:

(a) General Biology — The activities of living things should be the central idea. The laboratory and classroom work should include a study of the functions of representative plants and animals and their relation to each other and to their environment. These studies should be bound together by a knowledge of the common laws of living organisms.

(b) Botany — A study of examples of the great groups of plants should include the general laws of plant physiology, the fundamental facts of plant structure, and the relation of plants to animals and to man.

(c) Zoology — Representative common animals should be studied in field and laboratory that a knowledge of their habits and structure and of their structural and economic relation to man may be obtained. The relationship of plants to animals should also be considered.

As an essential part of any of these methods of meeting the requirement, a certified note-book with drawings and description of work done should be presented with the certificate, or at the time of examination. A more detailed account of the requirement may be found in the Syllabus of the New York State Education Department, or in the Publication of the College Entrance Examination Board.

CHEMISTRY

The requirement is substantially that specified in the Syllabus of the New York State Education Department. Not less than one-half of the course should be individual laboratory work devoted to the preparation and study of the common elements and compounds and to experiments illustrating important laws. The course should also include lecture-table demonstrations and the study of some good elementary text-book, with recitations covering the fundamental laws and theories of chemical combination, and the preparation, properties, and uses of the more important metallic and non-metallic elements, and their compounds.

PHYSICS

A detailed statement of the requirement may be found in the Syllabus of the New York State Education Department, or in the Publication of the College Entrance Examination Board. Preparation should include a knowledge of the general laws and principles of physics as presented in a good text-book, together with at least thirty experiments selected from a list similar to that given in the Syllabus. The student taking the examination here should present his note-book, with certification by the instructor under whose supervision the work was done that the experiments were satisfactory to him and were performed by the student himself.

A student who does not offer a note-book may meet the requirement by showing ability to solve more difficult problems in theoretical physics.

ADMISSION TO ADVANCED STANDING

A student who comes from an approved institution of collegiate rank and presents an official statement of his previous work may receive credit for such work without examination. This statement must include a full list of his accepted preparatory subjects, a list of his college subjects with his record therein, and a letter of honorable dismissal.

To compete for honors or prizes based in any way upon collegiate work done previous to entrance here, a student must pass examinations covering such work.

Any other student may be admitted to advanced standing by passing the necessary examinations of the departments concerned up to the point at which he desires to enter.

ADMISSION TO SPECIAL COURSES OF STUDY

A student of serious purpose, not a candidate for a degree, is admitted to courses which he is competent to pursue, subject to the approval of the departments concerned. A special student is not held strictly to the entrance requirements for the regular courses; but deficiency in any subject must be offset by more advanced preparation in another. He must choose courses amounting to not less than fifteen hours a week, not including public speaking. Biblical study is required. He must attain an average grade of six in the work of each term. In other respects he is subject to the administrative rules governing regular students. He is not eligible to scholarships, honors, or prizes.

A special student attaining a grade of eight for a complete year receives a certificate of proficiency. One who pursues studies for two or more years with an average grade of not less than eight and five-tenths is named on the commencement program as a candidate for a certificate of completed special study.

REGISTRATION

All new students are required to register on the day before the opening of the first term. For this purpose a member of the Committee on Schedules and Studies will be in the Library from 10 to 12 a. m., and from 2 to 4 p. m. On this day all freshmen will receive their program of studies for the year; and those who, under the regulations for the studies of fresh-

man year, elect a modern language or elementary Greek will then make their election.

All new students meet the Dean in the Chapel at five o'clock on the day of registration.

ENTRANCE PRIZES AND SCHOLARSHIPS

Prizes and prize scholarships are awarded upon the basis of the September examinations as follows:

(1) The Maynard Prize of $100.
(2) The Brockway Prize of $25.

The five Fayerweather Prize Scholarships, yielding tuition for freshman year.

The John W. Vrooman Prize Scholarship, yielding tuition for freshman year.

A detailed statement regarding these competitions will be found under the heading " Prizes."

There is a limited number of non-competitive scholarships which are available for freshmen. The conditions under which these scholarships are awarded will be found under the heading " Scholarships."

RESIDENCE AND GRADUATION

COURSES OF STUDY

There are two regular coures of study, the Classical and the Latin-Scientific. The degree of Bachelor of Arts is conferred only upon those who have done all the required work of the Classical Course in both Latin and Greek. The Classical Course is open (1) to those who present three or two units of Greek for entrance, and (2) to those who, entering under the Latin-Scientific requirements, elect to begin the study of Greek. The Latin-Scientific Course leads to the degree of Bachelor of Philosophy. The degree of Bachelor of Science is conferred upon those who have completed the entire work of at least two departments in Group C.

STUDIES OF FRESHMAN YEAR

The studies of freshman year are prescribed, except in the particulars that are given below. The following is a summary of the work of that year. An odd number indicates a course given in the first term; an even number, one given in the second term. Fuller descriptions of the courses will be found under the heading "Departments of Instruction."

A. Required of All Freshmen:

Mathematics 1–2	3 hours
Latin 1–2	3 hours
Public Speaking 1–3–4 Writing English 1–2	4 hours
Bible 1–2	1 hour
Hygiene and Gymnasium	1 hour

B. Additional Requirements of Classical Freshmen:

Greek 5–6, or 3–6, or 1–2..... 3 hours
German or French, 1-2 or 3-4.... 3 hours

C. Additional Requirements of Latin – Scientific Freshmen:

German 1–2 or 3–4..... 3 hours
French 1–2 or 3–4..... 3 hours

Regulations Governing Freshman Studies

1. All freshmen are required to take two foreign languages in addition to Latin. These two are chosen by the student from three languages: Greek, German, French (Greek being required of Classical freshmen); and the particular courses taken in each language will depend, as explained below, upon the number of units offered in that language for entrance. A student's choice is not restricted, except in one case: a freshman who enters with two units of Greek must take courses 1–2 in that modern language which he does not offer for entrance.

(*a*) Courses open to freshmen who have entered without preparation in a given language: Greek 1–2, German 1–2, French 1–2.

(*b*) Courses open to freshmen who have entered with two units in a given language: Greek 3–6, German 3–4, French 3–4.

(*c*) Courses open to freshmen who have entered with three units in a given language: Greek 5–6, German 3–4, French 3–4.

Note — A student's freedom of election in later years is to some extent circumscribed by the choice he makes under regulation 1, and in this connection he is advised to read regulations 4, 5, 6*a*, and 6*b*, governing electives of sophomore, junior, and senior years.

2. A student who enters with four units of mathematics

must take Mathematics 3–4 instead of 1–2 as stated in the table above.

3. A student who offers science, or history, or Spanish for entrance may continue these subjects only in a later year.

STUDIES OF SOPHOMORE, JUNIOR, AND SENIOR YEARS

Required Studies

In sophomore and junior years three hours of work in the Department of Rhetoric and Oratory are required of all students. In senior year three hours of work are required of all students as follows: one hour in Ethics and Christian Evidences, one hour in Debate, and one hour in Orations 11–12.

Elective Studies

Except for the required work as above described, all studies of the sophomore, junior, and senior years are elective. The choice of studies is made under a group system, the departments of study being assigned to three groups, as follows:

Group A. Foreign Languages, including Anglo-Saxon and Middle English.

Group B. English Literature, History, Philosophy, Economics, Social and Political Science.

Group C. Natural Sciences, Mathematics.

Regulations Governing Electives

1. All courses are continuous for the year and must be elected for the year.

2. All courses are assigned three hours each week.

3. Studies for the last three years are chosen at the end of the freshman, sophomore, and junior years respectively.

4. At least one year-course in one of the natural sciences and at least two year-courses in one of the modern languages are required for graduation.

5. In order to qualify for the A. B. degree, a student who enters with three units of Greek must take courses 5–6; one who enters with two units must take courses 3–6, 7–8; one who begins Greek in college must take courses 1–2, 3–6, 7–8. But a student who offered three units of German or French for entrance, and who has not taken up the study of that language in college, may substitute course 4 in that language for course 8 in Greek in the second and third cases above mentioned.

6. Sophomore studies. Each student must choose five year-courses. Of these, two must be chosen from Group A, and one each from Groups B and C.

(*a*) A modern language begun in freshman year must be continued through sophomore year.

(*b*) A student who entered with three units only of Latin must complete Latin 3–4 for graduation, unless in sophomore year he elects Greek 3–6 or 7–8 and continues the study of a modern language. But a student who offered three units of German or French for entrance, and who has not taken up the study of that language in college, may substitute course 4 in that language for Latin 4.

7. Junior and senior studies. During the last two years each student must complete ten year-courses. He may take not less than four courses nor more than six courses in either year; but the choice of four or six courses, rather than five, in either year shall be subject to the approval of the Committee on Schedule and Studies. During junior year he must complete at least one course from each group. During senior year he must complete at least one course from each of two groups.

8. In sophomore, junior, or senior year a student may elect any preceding course to which he is eligible, if the schedule of hours permits.

Note — The choice of studies for the year must be made not later than June 1. All elective cards must conform to the regulations 1–8, as given above, and all courses must be numbered and indicated as in the Summary of Elective Studies. The Committee on Schedule and Studies will assign courses to a student who does not return his elective card properly filled on or before June 1. No student may change his program of studies for the year later than 3 p. m. of the day before the opening of first term, and then only upon written application to the chairman, giving reasons satisfactory to the Committee.

SUMMARY OF ELECTIVE STUDIES BY GROUPS

SOPHOMORE YEAR

Group A

GREEK 7-8: Plato, Theocritus.
GREEK 3-6: Intermediate Greek, Odyssey.
LATIN 3-4: Tacitus and Pliny, Catullus and Cicero.
GERMAN 3-4: Intermediate German, Modern Plays and Novels.
GERMAN 5-6: Lyric Poetry, Historical Tragedy.
FRENCH 3-4: Intermediate French, Modern Comedy.
FRENCH 5-6: Tragedy, Comedy.

Group B

ENGLISH LITERATURE 1-2: General Introduction, 19th Century Poets.
PHILOSOPHY 1-2: Psychology, Logic.
HISTORY 1-2: Medieval, Modern.

Group C

MATHEMATICS 3-4: Analytic Geometry, Differential Calculus.
BIOLOGY 1-2: General Biology.
CHEMISTRY 1-2: Elementary College Chemistry.

JUNIOR YEAR

Group A

GREEK 11-12: Prose Writers.
GREEK 7-8: Plato, Theocritus.
LATIN 5-6: Drama, Satire.
GERMAN 5-6: Lyric Poetry, Historical Tragedy.
GERMAN 7-8: Goethe, Lessing.
FRENCH 5-6: Tragedy, Comedy.
FRENCH 7-8: Prose, Poetry.
SPANISH 1-2: Elementary Spanish.
ENGLISH LANGUAGE 1-2: Anglo-Saxon, Middle English.

Group B

ENGLISH LITERATURE 5-6: Romantic Period, Victorian Era.
PHILOSOPHY 3-4: Plato to Kant, Kant to Spencer.
HISTORY 3-4: England, 19th Century.
HISTORY 5-6: American History to 1789, 1789 to 1877.
ECONOMICS 1-2: Sociology, Economics.

Group C

MATHEMATICS 5-6: Calculus, Analytic Geometry.
BIOLOGY 3-4: Zoology, Embryology.
CHEMISTRY 3-4: Qualitative and Quantitative Analysis.
PHYSICS 1-2: Mechanics and Heat, Sound and Light.
GEOLOGY 1-2: Physiographic and Dynamic Geology.

SENIOR YEAR

Group A

GREEK 11-12: Prose Writers.
LATIN 7-8: History of Latin Literature.
LATIN 9-10: Roman Art.
GERMAN 7-8: Goethe, Lessing.
GERMAN 9-10: History of German Literature.
FRENCH 7-8: Prose, Poetry.
FRENCH 9-10: Romance Philology, Medieval Literature.
ITALIAN 1-2: Modern Italian, Dante.
SPANISH 3-4: Advanced Grammar and Modern Prose.
ENGLISH LANGUAGE 1-2: Anglo-Saxon, Middle English.
HEBREW 1-2: Grammar, Historical Prose.

Group B

WRITING ENGLISH 5-6: Advanced English Composition.
ENGLISH LITERATURE 7-8: Shakespeare and Elizabethan Drama.
PHILOSOPHY 5-6: Current Problems, Philosophical Classics.
PHILOSOPHY 7-8: Pedagogy.
HISTORY 7-8: American History 1877 to 1915, International Relations.
HISTORY 9-8: Constitutional Government, International Relations.
HISTORY 9-10: Constitutional Government, American Politics and Constitutional Law.
ECONOMICS 3-4: Advanced Economics, Public Finance.
ECONOMICS 5-6: Law.

Group C

MATHEMATICS 7-8: Projective Geometry, Differential Equations.
BIOLOGY 5-6: Bacteriology, Histology and Physiology.
CHEMISTRY 3-4: Qualitative and Quantitative Analysis.
PHYSICS 1-2: Mechanics and Heat, Sound and Light.
PHYSICS 5-6: Astronomy, Laboratory Practice.
GEOLOGY 3-4: Structural and Historical Geology.
GEOLOGY 5-6: Mineralogy.

DEPARTMENTS OF INSTRUCTION

An odd number indicates a course given in the first term; an even number, one given in the second term.

All courses are assigned three hours a week, except as otherwise stated.

Group A

GREEK

Professor Fitch
Assistant Professor Hastings

Courses 5 to 12 form a program for four years, based upon a college preparation of three units. Courses 1-2 are designed for those who begin Greek in college. For such students courses 3 and 6 constitute a second year's work; 7 and 8 a third year's work; a fourth year is possible in courses 9-10 or 11-12. Course 5 is not ordinarily open to these students.

1-2. **Elementary Greek.** Goodwin's Grammar is used from the beginning. Attention is devoted to Attic forms and syntax in connection with readings from the *Anabasis.* Exercises in writing Greek continue throughout the year. *Open to freshmen who enter without Greek.*

3. **Intermediate Greek.** Selections from Homer's *Iliad.* Homeric forms, constructions, and prosody. *Prerequisite, 1-2, or two units of entrance Greek.*

5. **Lysias.** This course includes a review of grammar, work in prose composition, and an introductory study of rhetorical style. *Required of freshmen who enter with three units of Greek.*

6. **Homer's Odyssey.** In alternate years selections are read from Books 1-12 and 13-24, with particular attention to the structure of the poem, to Homeric antiquities, and to the historical aspects of the language. *Prerequisite, 3 or 5.*

7. **Plato.** *Apology, Crito,* and portions of the *Phaedo.* A study of the character of Socrates as portrayed by Plato and of the more general aspects of his significance as a thinker. *Prerequisite, 6.*

8. **Theocritus.** The *Idylls* are illustrated by parallel passages from the other Alexandrian poets. *Prerequisite, 7.*

9-10. **The Drama.** Careful interpretation of a tragedy of Sophocles or Euripides, followed by rapid reading of other selected tragedies. Aristophanes is studied in similar manner. The year's work includes a survey of Greek poetry from Homer to the drama. *Prerequisite, 8. Alternates with 11-12.* (Not offered in 1915-16).

11-12. **Prose Writers.** A careful study of one important prose work. In 1915-16 Plato's *Gorgias* or *Republic;* thereafter Demosthenes' *De Corona.* Second term, a study of New Testament Greek, in connection with selected portions of the *Septuagint.* The year's work includes a survey of Greek prose literature. *Prerequisite, 8. Alternates with 9-10.*

In connection with 5, 6, 7, 9, 10, illustrated lectures on art and archaeology are given, and collateral reading is required. The topics treated are: the Acropolis, its history and monuments; the Cretan and Mycenean periods; the Parthenon; the monuments of Olympia and Delphi.

LATIN

Professor C. K. Chase
Assistant Professor Hastings

1. **Livy.** Selections from Books I, XXI, and XXII, with a review of Latin grammar and prose composition.

2. **Horace.** A purely literary study of the *Odes* and *Epodes.*

3. **Tacitus and Pliny.** Reading of the *Agricola* of Tacitus and selected letters of Pliny, with a study of the literature and society of the Silver Age.

4. **Catullus and Cicero.** Reading of the poetry of Catullus and selected letters of Cicero, with a study of the political and social history of the period.

5. **Roman Drama.** One tragedy of Seneca read rapidly; Plautus and Terence. Emphasis is placed on Roman comedy; several plays are read.

6. **Roman Satire.** After a brief introduction to early satire, attention is devoted mainly to the reading of Horace and Juvenal.

7-8. **History of Latin Literature.** This course consists primarily of extended readings from the Latin authors; with lectures, and the

reading of modern authorities. In second term, certain problems connected with the language as well as the literature are considered. *Two hours. To receive credit for this course, 9-10 must also be taken.*

9-10. **Roman Art.** This course includes such topics as the relation of Roman to Greek art, Roman painting, sculpture, architecture, processes of construction, and other problems in Roman archaeology. Lectures and reading. *One hour. Advanced courses in Latin are not prerequisite, but to receive credit for this course, 7-8 must also be taken. Open to juniors and seniors.*

Except as noted immediately above, each course calls for the preceding course as a prerequisite, unless permission to elect has been granted by the instructor.

GERMAN

Professor Brandt
Associate Professor Super

Courses 1 to 4 are planned to give not only a sound preparation for speaking German, but also a fluent reading knowledge, which is useful in junior and senior subjects and required in the best graduate and professional schools. To insure this proficiency, a student entering without German should begin it freshman year, as there is no assurance of an opportunity to elect back later. Courses 5 to 10 aim to give an intimate acquaintance with the language, literature, and civilization of Germany.

1-2. **Elementary German.** Thorough grounding in pronunciation, forms, and syntax. From the beginning stress is laid on writing and speaking. Selections from a Reader. In second term, Schiller's *Tell* is added to the readings. *Required of Latin-Scientific freshmen who enter without German. Elective for other students.*

3. **Intermediate German.** In grammar, word-formation; prose composition on difficult syntactical points. Reading of Schiller's *Jungfrau von Orleans* and Goethe's *Hermann und Dorothea;* historical prose from the Reader. *Prerequisite, 1-2, or the equivalent in entrance German.*

4. **Modern Plays and Short Novels.** Rapid reading for the expansion of the vocabulary. Increased sight translation.

Courses 3-4 are required of sophomores who have taken 1-2 as freshmen, and of Latin-Scientific freshmen who offer German for entrance.

5. **Lyric Poetry.** From Walter von der Vogelweide to the present day. Echtermeyer's *Auswahl Deutscher Gedichte* and *The Oxford Book of German Verse.* Alternative: The German Romantic School. Extra readings, with abstracts in German, are assigned. *Open to Classical juniors and Latin-Scientific sophomores. Prerequisite, 3-4, or the equivalent in entrance German.*

6. **Masterpieces of Historical Tragedy.** Especially those of the classical period: Schiller's *Don Carlos* and *Wallenstein;* Goethe's *Egmont.* Modern plays by Grillparzer, Hebbel, and Wildenbruch.

7. **Goethe.** Life and works, centering in *Faust* I and II. *Open to Classical seniors and Latin-Scientific juniors. Prerequisite, 5-6.*

8. **Lessing.** Plays and Prose Works. Lewisohn's *German Style.*

9-10. **History of the German Language and Literature.** German lectures and essays. Selected readings from Middle High German and sixteenth century literature. History of the language, etymology and phonology. *Open to juniors and seniors who have completed 3-4.*

ROMANCE LANGUAGES

French

Professor Shepard
Associate Professor Super

1-2. **Elementary French.** Grammar, including careful drill in pronunciation, easy reading, composition, conversation, dictation. The oral method is used extensively and as early as possible. *Required of Latin-Scientific freshmen who enter without French. Elective for other students.*

3. **Intermediate French.** Reading of modern prose fiction, short stories, etc. Advanced composition. Continued practice in dictation and conversation, based on the texts read. *Prerequisite, 2.*

4. **Modern French Comedy.** Rapid reading of selected plays; writing of abstracts, and conversation based on texts read. Special attention to pronunciation and to reading without translating. *Prerequisite, 3.*

Courses 3-4 are required of sophomores who have taken 1-2 as freshmen, and of Latin-Scientific freshmen who present French for entrance.

5. **French Tragedy.** Corneille to Rostand. Reading in class of selected plays of Corneille, Racine, Hugo, and Rostand. Many others

are assigned for outside reading. *Résumés* and critiques in French of assigned outside reading; lectures in French on the history of tragedy. *Prerequisite, 4.*

6. **French Comedy.** Molière to Dumas *fils.* Reading in class of selected plays of Molière, Beaumarchais, Marivaux, Musset, Augier, and Dumas *fils. Résumés* and critiques in French of assigned outside reading; lectures in French on the history of comedy. *Prerequisite, 5.*

7. **Modern Prose Literature.** Descartes to Renan. Reading and *explications* in French of selected texts from the chief modern prose authors. Study of the development of French prose, with Lanson's *Histoire de la littérature française* as a foundation. Outside readings, *résumés,* critiques, and lectures. *Prerequisite, 6.*

8. **French Poetry.** Villon to Verlaine. Reading and *explications* in French of selected texts from the chief French poets, with *The Oxford Book of French Verse* as foundation. Study of French versification and of the development of lyric and narrative poetry. Outside readings, critiques, and lectures. *Prerequisite, 7.*

9. **Romance Philology.** Introduction to the comparative and historical grammar of the Romance languages, with special attention to Old French and Provençal. Reading of selected texts. *Prerequisites, French 6, Latin 4.*

10. **Medieval Literature.** Reading of selected extracts, and comparative and historical study of the lyric and narrative poetry of the Middle Ages, especially in Old French and Provençal. Special attention to the Carolingian and Arthurian cycles, their origin and diffusion from the earliest times down to Tennyson and Wagner. *Prerequisite, 9.*

Spanish

ASSOCIATE PROFESSOR SUPER

1-2. **Elmentary Spanish.** Pronunciation, inflection, the laws of syntax and their application. Translation of simple prose; writing from dictation; oral and written exercises in composition. *Open to juniors.*

3-4. **Advanced Grammar and Modern Prose.** Continued practice in composition, dictation, and oral drill. Translation and sight reading, with constant reference to morphology and idiom in connection with the text. Representative works of such authors as Cervantes, Alarcón Galdós, Valera, Valdés. *Prerequisite, 1-2.*

Italian

Professor Shepard

1. **Introduction to Modern Italian.** Grammar, composition, rapid reading. The object of this course is the acquisition of a reading knowledge of modern Italian. Manzoni's *I promessi sposi* and selected short stories are used as texts. *Open to seniors. Prerequisite, French 4, Latin 4.*

2. **Introduction to the Study of Dante.** Reading of the *Vita Nuova* and of selected *canti* of the *Divina Commedia,* with much outside reading, including a study of Dante and his times, especially his relation to earlier poetry, Provençal and Italian, and to the religious and political thought of the Middle Ages.

ENGLISH LANGUAGE

Professor Ristine

1. **Anglo-Saxon.** An introduction to the language and literature of England before the Norman Conquest. Bright's *Anglo-Saxon Reader* is the basis of study, accompanied by lectures on the history, structure, and vocabulary of the English language. *Open to juniors and seniors who have studied German.*

2. **Middle English.** Chaucer, his century, and his contemporaries. *The Canterbury Tales* are read, parts of the *Troilus and Criseyde* and the minor poems, and selected texts illustrating the various Middle English dialects and literary types. *Prerequisite, 1.*

HEBREW

Professor Ibbotson

1. **Elementary Grammar and Reading.** Exercises in translation from English into Hebrew. Selections from *Genesis.* Harper's *Hebrew Method and Manual,* and *Elements of Hebrew. Open to seniors.*

2. **Historical Prose.** Hebrew syntax. Chapters from *Ruth, Samuel,* and *Kings.* Kittel's *Biblia Hebraica.* Brown, Briggs, and Driver's *Hebrew Lexicon.*

Group B

ETHICS AND APOLOGETICS

PRESIDENT STRYKER

1-2. Biblical Study. The history of the English Bible and the study of the origins of the Bible, that is, the outline of its growth and moral sequence. A portion of the time may be given to instance work in method of interpretation of the actual text. *One hour. Required of freshmen.*

3-4. Ethics and Christian Evidences. First term: The history of ethical theory; its central importance; the basis of moral obligation; the resultant duties to God and to man; the interpretation of conscience; the moral purpose to be sought in the whole complex of society. A text-book is used. Second term: The religious argument from the natural creation, and the evidences of Christ's portrayal in Holy Scripture and his revelation in history as the Divine Redeemer of the world. *One hour. Required of seniors.*

RHETORIC AND ORATORY

PROFESSOR LEWIS
ASSISTANT PROFESSOR MARSH

Public speaking in some form is required of every student from the time he enters until he graduates. Theme-writing extends through the first two years; and during the last two, composition, oral and written, is continued in discussions, orations, and debates.

It is believed that the mastery of English cannot best be taught by written method alone. Since the language of daily life is mainly oral, the greater part of the instruction in it should also be oral rather than written. The most recent movement in the pedagogy of English is towards this idea, long incorporated in our practice.

All courses in this department, except Writing English 5-6, are required, and all are one-hour courses unless otherwise stated.

Writing English

1. Freshman Writing English. The study and application of the elementary principles of English composition. The technique of writing. Weekly themes.

2. Freshman Rhetoric and Writing English. A continuation of 1, together with the study of rhetoric. *Three hours a week.*

3-4. Sophomore Writing English. Advanced study and practice. Weekly themes.

5-6. Advanced English Composition. This course is for ten selected seniors, who under supervision criticise freshman themes (Writing English 1-2). Each has a group of six to eight freshmen for whose themes he is largely responsible. There is a conference over each piece of writing. The results of this work are subject to revision by the instructor. The meetings of the class are occupied with discussions of special forms of writing, and considerable practice work in each form is done. This course is useful for men who are planning to teach English or to become journalists. *Three hours.*

Public Speaking

1. Elements of Public Speaking. The production and control of the voice, vowel and consonant sounds, the correction of vocal faults. The voice in speech: articulation, pronunciation, force, rate, pitch, timbre, emphasis, inflections, delivery, phrasing. Personality in speaking: physical interpretation, gesture, action. Short speeches (125-200 words) every two weeks. *Two hours, first term freshman year.*

3-4. Freshman Declamation. Each freshman appears three times during the year with a prose declamation 350-400 words in length. Three drills are required for each appearance.

5-6. Sophomore Declamation. Each sophomore appears once each term with a prose declamation 350-400 words in length. Two drills are required for each appearance. The second declamation may be original.

7-8. Junior Declamation. Each junior appears each term with an original short speech about 400 words in length. One drill is required for each appearance.

9-10. Junior Discussions. Original argumentative orations, 700-900 words in length, on approved propositions, affirmative and negative. Each junior appears once a term. No drills required.

11-12. Senior Orations. Each senior appears once each term with an original oration on an approved subject, 800-1000 words in length. No drills required.

13. Sophomore Debate. Classroom study of the theory of argumentation and debate, including the analysis of propositions, methods of proof and rebuttal, briefing, and platform practice.

14. Sophomore Debate. Classroom debates from briefs made in 13.

15-16. Junior Debate. Advanced classroom debates.

17-18. **Parliamentary Law and Debate.** At the beginning of senior year five weeks' instruction in parliamentary law is given. After this, class-room debates are resumed and continue through the year.

ENGLISH LITERATURE

Professor Ristine
Assistant Professor Marsh

1. **General Introduction to English Literature.** A rapid survey of the facts of English literary history from the beginnings to the nineteenth century, supplemented by outside reading, and accompanied by classroom study of Beowulf (in translation), Spenser, Milton, and Pope.

2. **Chief British Poets of the Nineteenth Century.** Special study of Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, and others. Lectures, recitations, and essays. *Prerequisite, 1.*

Courses 1-2 are open to all who have completed the freshman year and prerequisite to all further work in English literature.

3. **English Literature in the Seventeenth Century.** The work includes the seventeenth century lyric; the prose of Milton, Bunyan, Browne, and others; the work of Dryden; with special stress on the social and political conditions of the time. *Prerequisite, 1-2.* (Not offered in 1915-16).

4. **English Literature in the Eighteenth Century.** Study of selected masterpieces from the Augustan writers, with wide outside reading in the literature of the century. Special attention to the development of modern prose style, the rise of the periodical essay and the pamphlet, and the beginnings of the novel. *Prerequisite, 3.* (Not offered in 1915-16).

5. **The Romantic Period of English Literature.** The poets and prose writers concerned in the revival of imaginative literature between 1798 and 1832, particularly Wordsworth, Coleridge, Lamb, Hazlitt, and DeQuincey. *Prerequisite, 1-2.*

6. **The Victorian Era of English Literature.** A study of as many of the Victorian writers as time permits — Macaulay, Carlyle, Mill, Arnold, Tennyson, the Brownings, Newman, Ruskin — with a course of outside readings in the nineteenth century novel. *Prerequisite, 5.*

7-8. **Shakespeare and the Elizabethan Drama.** Shakespeare is the center of study for the year. All the plays are read, with critical study of certain dramas representative of the different stages in the development of his art. Lectures on the history of the drama from the beginnings to 1642; collateral reading in the minor Elizabethan playwrights. Library topical work and practice in handling original sources. Term theses required. *Open to seniors who have completed with credit at least one year-course in this department.*

For **Anglo-Saxon** and **Middle English,** see under English Language.

PHILOSOPHY

Professor Squires

1. **Psychology.** A general introduction to the study of philosophy and pedagogy. The elements of descriptive, physiological, and genetic psychology. Text-book, lectures, and reports on assigned readings.

2. **Logic.** Deductive and inductive logic, with rules of evidence as formulated by such writers as Greenleaf or Stephen.
Courses 1-2 are open to all who have completed freshman year.

3. **Plato to Kant.** The problems of philosophy from Plato to Kant. Lectures, papers, and readings from sources.

4. **Kant to Spencer.** The modern schools of philosophy from Kant to Spencer, with emphasis on the metaphysics and aesthetics of the period, and the relation of philosophy to current belief.

5. **Current Problems in Philosophy.** Studies in pragmatism, idealism, realism; in social, abnormal, and experimental psychology; and in advanced logical theory. *Prerequisite, 3-4.*

6. **Philosophical Classics.** The reading of Kant's *Critique of Pure Reason,* Locke's *Essay Concerning Human Understanding,* Schopenhauer's *The World as Will and Idea;* or American philosophical writers. *Prerequisite, 5.*

7. **Pedagogy.** The history, science, principles, and theory of education. *Open to seniors. Prerequisite, 1-2.*

8. **Pedagogy.** The practical problems of education, including methods, teaching, and the reading of educational classics. *Prerequisite, 7.*

Teachers' Certificate. Under the rules of the New York State Education Department, a "Professional Certificate," valid for three years, is granted to a graduate of an approved college. At the end of

three years' successful experience in teaching, a "College Graduate Certificate" will be issued, valid for life. This exempts from further examination, except in certain cities. A student who desires this certificate must complete the course in pedagogy approved by the Education Department.

HISTORY

European History

1. **Medieval History.** General survey of the history of Western Europe from the fall of Rome to the Renaissance. Special attention to the graphical representation of historical periods. Lectures, frequent tests, and reports upon assigned topics.

2. **Modern History.** From the middle of the fifteenth century to the French Revolution. Special attention to the European background of American history.

Courses 1-2 are open to all who have completed freshman year.

3. **History of England.** From the earliest times to the close of the American Revolution. In connection with political history special attention is given by synchronological outlines to the literature of each period and to the growth of constitutional government. *Prerequisite, 2.*

4. **History of the Nineteenth Century.** The French Revolution and its results. The reconstruction after the fall of Napoleon, and the development of modern Europe. *Prerequisite, 3.*

American History

PROFESSOR WOOD

5. **American History to 1789.** The European background of colonial enterprise. The causes and character of colonial activity. A study of the colonizing systems of Spain, France, and England. The growth and predominance of English institutions in America. Trade and industry as causes of independence. *Open to juniors. Recommended preparation, 1-2.*

6. **American History, 1789-1877.** Political history of the United States from 1789 to 1877, and briefly of Latin America. Development of trade and industry. Territorial expansion. Evolution of democracy. Slavery and reconstruction. *Prerequisite, 5.*

7. **American History, 1877-1915.** Industrial reorganization and expansion. Civil service reform. The tariff. Public control of railroads and industrial corporations. The Spanish War and the Empire

of the United States. Constitutional changes. Development of Latin America. *Prerequisite, 6.*

8. **The International Relations of the United States.** America as a world-power. Laws governing the relations of states. The Monroe Doctrine, past and present. Relations of the United States, past and present, to Latin America, to European leagues, and to the Far East. The Hague conferences and the World-State. The peace movement. *Recommended preparation, 5, 6, and 7.*

9. **American Constitutional Government.** The frame of government, national, state, and local. Parties and their actual working. The influence of social, educational, and business organization upon government. Origin and development of representative government. *Open to seniors. Recommended preparation, 5-6.*

Courses 7-8, 9-8, or 9-10 form each a year-course.

10. **American Politics and Constitutional Law.**

(*a*) Seminar for the study and discussion of important current problems in politics. *Prerequisites, History 9 and Economics 2, 3. Open to seniors who are approved in advance upon the basis of their standing and quality in the Departments of Economics and History. One and one-half hours first term. Professor Davenport.*

(*b*) Reports and discussions on the great constitutional decisions of the Supreme Court. Current constitutional problems. A text-book on constitutional law is used. *Prerequisite, 9. One and one-half hours second term. Professor Wood.*

(*c*) Comparative government. Study of European and colonial governments in comparison with that of the United States. *Prerequisite, 9. One and one-half hours second term. Professor Wood.*

Any two divisions of course 10 together with History 9 constitute a year-course.

ECONOMICS, SOCIOLOGY, LAW, AND POLITICS

Professor Davenport
Assistant Professor Clarke

1. **Sociology.** An introductory and interpretative course, especially related to history, economics, politics, and law.

2. **Economics.** An introduction to economic theory, with special studies of important economic questions.

Courses 1-2 form a year-course. Open to juniors.

3. **Advanced Economics.** The growth and development of industry and commerce in the United States. Tariff, finance, labor, and monopoly problems are treated in detail. *Prerequisite, 2.*

4. **Public Finance.** Emphasis upon expenditure, taxation, the public debt, and the budget. The point of view is American; but American practice is constantly compared with that of other leading nations. *Prerequisite, 3.*

5-6. **Law.** The elements of law and applied principles of economics and law. First term, the topics covered include the sources, nature, and development of law, the characteristics of the common law and of equity, procedure in common law and in equity, the rights of the person and property rights, contracts, agency, bailments. Collateral reading from Blackstone's *Commentaries* and Holland's *Elements of Jurisprudence.* Second term, the fundamental principles of the law of corporations, with the particular study of American railway law as a pertinent example of the development of legal control through discussion and public opinion. Lectures are accompanied with the study of typical cases throughout the year. *Open to all seniors.*

American Politics. A seminar for the study and discussion of important current problems in politics. Information regarding the hours and credit for this work is given under History 10. *One and one-half hours first term.*

Group C

MATHEMATICS

ASSOCIATE PROFESSOR CARRUTH
ASSOCIATE PROFESSOR BROWN

1. **Algebra.** Graphical representation, complex numbers, theory of equations, determinants, partial fractions, continued fractions, inequalities, permutations and combinations, probability. Text-book: Rietz and Crathorne's *College Algebra.*

2. **Trigonometry.** Theory and use of logarithms, definitions and relations of the trigonometric functions of acute angles and of angles in general, the solution of right and oblique triangles.

Courses 1-2 are required of all freshmen except those who enter with four units of mathematics.

3. **Analytic Geometry.** An elementary course in plane analytic

geometry. Cartesian and polar coördinates, simple curve-tracing, study of the straight line and conic sections. *Prerequisite, 1-2.*

4. **Differential Calculus.** Differentiation of algebraic and transcendental functions. Simple applications to algebra, geometry, and mechanics. *Prerequisite, 3.*

5. **Calculus.** Technique of integration. The definite integral, and applications to geometry and mechanics. Further study of differential calculus, including change of variable, partial differentiation, expansion of functions. *Prerequisite, 4.*

6. **Analytic Geometry.** Analytic geometry of three dimensions, including a brief discussion of quadric surfaces. Applications of calculus to analytic geometry of two and three dimensions. *Prerequisite, 5.*

7. **Projective Geometry.** Elementary synthetic geometry, involving ranges of the first and second order, and constructions. *Prerequisite, 3.*

8. **Differential Equations.** The solution of the simpler types of differential equations, with applications to physics. *Prerequisite, 5.*

BIOLOGY

Professor Morrill

1-2. **General Biology.** The observation of living organisms representing the great groups of plants and animals, together with the study of their structure, is used as an introduction to the phenomena of life. After the general study of both plants and animals, attention is focused on animal biology, followed in the second term by the study of plant biology. In the laboratory and lectures emphasis is placed on the function and form of organs as dependent on each other, and on the laws of living organisms.

Courses 1-2 require two hours in the lecture room and four hours in the laboratory each week, but are reckoned as three-hour courses. *Prerequisite to all later courses. Laboratory fee, $15.*

3. **Zoology.** The study of examples of the invertebrate animals is followed by the study of the anatomy of the cat, as a representative vertebrate. This course is valuable as a preparation for the study of comparative anatomy, psychology, or medicine. *Prerequisite, 1-2.*

4. **Embryology of Vertebrates.** The study of the development of the frog and the chick, supplemented by that of an elasmobranch

and a mammal, gives an opportunity to trace the growth of the organs of the body, and serves as an introduction to microscopical technique. *Prerequisite, 3. Laboratory fee for 3-4, $15.*

5. **Elementary Bacteriology.** A familiarity with the methods of bacteriology is secured by the study of non-pathogenic bacteria and by an introduction to the technique of water and milk examination. *Prerequisite, 4.*

6. **Histology and Physiology.** The minute structure of the organs of vertebrates as a basis for the study of physiology. The phenomena of motion, secretion, and excretion, are considered. *Prerequisite, 5. Laboratory fee for 5-6, $15.*

CHEMISTRY

PROFESSOR A. P. SAUNDERS

All courses in chemistry require two hours in the lecture room and four hours in the laboratory each week, but are reckoned as three-hour courses. The laboratory fees are $10 each term.

1. **Elementary College Chemistry.** A thorough discussion of the fundamental laws and theories of chemistry, together with a study of the gaseous elements and a few of the metals. In the lecture room special emphasis is laid on chemical calculations, and in the laboratory a considerable number of quantitative experiments are made, to illustrate the laws of combining proportions, etc.

2. **College Chemistry.** A study of elements not taken up in 1. Chemical calculations. The periodic system of the elements. *Prerequisite, 1.*

3. **Qualitative Analysis.** Theory of solution. Application of the ionization theory to analytical procedure. *Prerequisite, 2.*

4. **Quantitative Analysis.** Study of selected typical gravimetric and volumetric methods. *Prerequisite, 3.*

5. **Organic Chemistry.** Aliphatic compounds. *Prerequisite, 2.* (Not offered in 1915-16.)

6. **Organic Chemistry.** Aromatic compounds. A part of the course is devoted to the chemistry of nutrition, agricultural chemistry, or other selected special topics. *Prerequisite, 5.* (Not offered in 1915-16.)

Courses 5-6 alternate with 3-4 in successive years.

PHYSICS

PROFESSOR S. J. SAUNDERS

1. **Mechanics and Heat.** Lectures and recitations. *Open to juniors and seniors.*

2. **Sound and Light.** Lectures and recitations. *Open to juniors and seniors.*

3. **Electricity and Magnetism.** Lectures and recitations. *Open to juniors and seniors.* (Not offered in 1915-16.)

4. **Electricity and Magnetism.** Lectures and recitations. *Prerequisite, 3.* (Not offered in 1915-16.)

Courses 1-2 alternate with 3-4 in successive years.

5. **Descriptive Astronomy.** Lectures and recitations. *Open to seniors.*

6. **General Laboratory Practice.** Quantitative work with written reports and discussions of the results of the experiments. *Prerequisite, 1-2 or 3-4. Laboratory fee, $4.*

GEOLOGY AND MINERALOGY

ASSISTANT PROFESSOR DALE

1-2. **Physiographic and Dynamic Geology.** The description, origin, and evolution of the earth's relief features. The dynamic forces now at work which are responsible for the present configuration of the earth's surface. Physiographic response to man. The interpretation of topographic maps. Lectures, recitations, and field trips. Classroom work illustrated by lantern slides, charts, maps, and photographs. *Open to juniors.*

3-4. **Structural and Historical Geology.** The materials of the earth's crust and their arrangement. Ore deposits. The history and evolution of the earth and its inhabitants from the earliest time to the present. Lectures, recitations, laboratory work, and the reading of abstracts. Field trips in the vicinity of Clinton and to neighboring localities classic in geological literature. *Prerequisite, 1-2.*

5-6. **Mineralogy.** First term, the general principles of mineralogy, including crystallography and the physical and chemical properties of minerals. Second term, descriptive and practical determination of one hundred common and commercially valuable minerals. Lectures on minerals and ores of special scientific and economic importance. *Labor-*

atory fee, $3 for the year. Open to seniors. Prerequisite, Elementary Chemistry.

PHYSICAL EDUCATION

ASSISTANT PROFESSOR D. CHASE

1-2. **Hygiene and Physical Training.** Personal and public hygiene, including lectures on the care of the body, sex instruction, general and corrective exercises, ventilation, home and village sanitation, with special attention to New York State needs and laws. Practical work in gymnastics throughout the year. Outdoor group games and athletics and work in the gymnasium, calisthenics, the use of apparatus, Indian clubs, dumb-bells, wands, etc., with special leadership training. *Required of freshmen. Three periods a week for the year. One-hour credit.*

3-4. **Physical Training.** Advanced work on heavy apparatus and special gymnastic drills. *Required of sophomores and elective for juniors and seniors. A student whose work is unsatisfactory must repeat the course or otherwise make up the deficiency. Two periods a week from November 15 to Easter Recess.*

ADMINISTRATIVE RULES

1. Standing and Delinquency

(*a*) Grades. All grades are on a scale of ten. Each absence from a classroom exercise in excess of the regular allowance for the course counts as a zero in scholarship record. An instructor may require any classroom work lost by absence to be made up. Standing in any course is based upon term grade and examination grade. In a three-hour course the term grade counts as 50, the examination grade as 15; in a two-hour course the ratio is 30 to 15, and in a one-hour course the ratio is 15 to 10, the unit being a single recitation.

Each successful prize competitor and each appointee for Prize Declamation, Prize Debate, or Clark Prize competition receives credit as for twenty perfect recitations. Other competitors may receive fifteen, ten, or five "perfects," as their work deserves.

On the basis of scholarship for the year, four groups are formed of each class: (i.) High Honor, those whose average is 9.2 or over; (ii.) Honor, those whose average is 8.6 to 9.2; (iii.) Credit, those whose average is 8 to 8.6, and (iv.) those whose average is less than 8.

(*b*) Reports of Standing. Numerical grades are not made public; but annually, in September, the high honor, honor, and credit men of each class are announced to the College. A student's parent or guardian is notified in September as to the scholarship group to which the student belongs, and at the end of each term if the student has any delinquency. He may further be notified at the middle of the term if the student's work in any course is unsatisfactory.

(*c*) DELINQUENCY OF FAILURE. A delinquency of failure is a failure to attain a term grade of 5 in a course, or to attain a grade of 6 in a required examination. A student who fails to attain a term grade of 5 in a course is excluded from the regular examination of that course.

A delinquency of failure may be removed by passing an examination on a regular delinquent day. If this is not done before the course is next offered, the student must repeat the work in class as an extra subject. Failures and delinquencies in Tuesday and Saturday rhetoricals may be satisfied on the first Tuesday or Saturday chapel of first term, the first of second term, or the first after Easter recess.

(*d*) DELINQUENT EXAMINATIONS. Delinquent examinations are held at specified hours on the day preceding the opening of first term, on the eighth day of second term, and on the final day of Easter recess.

A student due for not more than two examinations may report on these days only. If due for more than two examinations he may (provided he has taken two on delinquent day) report on this same day to the instructor concerned for appointment, not later than the third succeeding day, in any remaining subject. The delinquent examinations of the Easter recess, however, are confined to one day.

(*e*) DELINQUENCIES AMOUNTING TO TEN HOURS. A delinquency of failure in a course of a given number of hours is reckoned as a delinquency of that number of hours. A delinquency of attendance (see 3, *a*) is reckoned as a delinquency of two hours. Whenever a student's delinquencies amount to TEN HOURS he is dropped from his class. He may in no case return to the class from which he was dropped. He may re-enter college in a lower class; but to be re-admitted he must be free from all conditions and failures up to the point at which he re-enters. A student may be dropped from college at any time for general neglect.